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ABSTRACT

This paper describes prevocational education in Venezuela on each educational level. First, it sets a historical context by identifying aspects of technical education that emerged at different times in its development; then it identifies certain strategies created to support the implementation of prevocationalization, and finally it concludes by providing a conceptualization of some current problems. Recurrent through the paper are the themes of shifts in policy and practice toward technical education and prevocational studies in Venezuela. These shifts have made it difficult to sustain any successful efforts in such curriculum areas. In addition, limited resources in economic and labor market terms have made it extremely difficult to implement any effective, consistent educational policy. (KC)

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IMPLEMENTING PRE-VOCATIONAL STUDIES IN VENEZUELA

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Universidad Central de Venezuela

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1.0 INTRODUCTION

The present reform of the educational system in Venezuela is drawing much attention. Common critics have indicated the ineffective role which the educational sector has assumed in the sense of developing adequate human resources needed to support the productive sector at local, regional and national levels. Some commentators have indicated the limited impact of education as a means for developing a more productive life for the inhabitants of Venezuela (Chirinos, 1986).

In the labour force structure of the country, more than 56% of the total manpower are primary school drop outs or graduates, 34% are secondary graduates, and less than 10% are higher education graduates. The uneployment rate for primary school graduates is 14%, for those from secondary it is 16%, and for graduates from higher education it is 4%(OCEI, 1985).

This high rate of unemployment and the limited returns on educational investment have elicited substantial debate on the inter-relationship between Education and Employment, though most discussion has been limited to the case of higher education. It is only recently that a movement for promoting the exchange of information and experiences amongst Latin American countries concerning education and work in Basic and Secondary education has arisen (UNESCO-ME, 1985; CAT-OEA, 1985).

In 1981, the reform "Implementing Basic Education" was introduced in order to seek a "better quality" of education. In this reform, compulsory education was extended from the 6th grade up to the 9th grade. Hitherto, the system "Educacion Basica" (Basic Education) (ME, 1980) comprised grades 1 to 9. It is a system-wide change entailing various dimensions, including the philosophical foundations, curriculum content, teaching methods and evaluation systems. Prevocational education, "Educacion para el Trabajo" (Education for Work) became one of the seven regular curriculum areas and is an obligatory subject. For the 1st and 6th graders, this was the first time that pre-vocational education was included as one of the core curriculum areas. The implementation of this program implies a high cost in terms of expenses and human resources compared with other areas such as language or mathematics.

In 1971 an earlier attempt at implementing prevocational studies for 7th to 9th graders "failed" due to inconsistencies in official policies, lack of prepared teachers and resource materials. These same reasons amongst others could also undermine this new program. Lack of information about how the students develop their careers, lack of material for prevocational education, and lack of information about the world of work in the country are critical problems for the teachers who are the implementers of this innovation. These problems require urgent solutions. This program now in the process of implementation throughout the country, faces considerable constraints.

Diversified secondary education in Venezuela is divided into three areas: Humanities, Sciences and Technical education. Technical education attends about 24% of the total diversified secondary education students in 56

specialized areas (ME, 1984c).

Technical education was incorporated into secondary education under a more organized and systematic curriculum reform in 1969, after it had previously grown into many diverse forms, such as technical schools. These technical schools were closed and became incorporated into diversified technical education. In 1977, some technical schools re-opened under the name of "New technical schools", following the unsatisfactory outcomeof the diversified technical education reform.

Technical education, as one of the areas of Diversified secondaryeducation is in a critical situation: criticised by Basic education for not being capable of receiving its innovation graduates, criticised by the Universities for their deficient academic preparation, and criticised by the labour market for its inefficient vocational training. There is an outside demand for change. The current economic crisis of the country and fast change of economic-industrial structure has added to this force.

Prevocational education in Venezuela is in its infancy. It is much too early to inform about the evaluation of this program. This paper thus provides a brief description of prevocational education in each education level. Firstly, it sets an historical context by identifying aspects of technical education , then identifies certain strategies created to support its the implementation of prevocationalisation and concludes by providing a conceptualization of some current problems.

This paper will not speculate about which direction the innovation will

take, nor try to evaluate the process empirically. Throughout the work some suggestions are offered, but this is a rather modest attempt to analyse the current "state of affairs" of vocationalised education in Venezuela, providing information and conceptualising some relevant problems related to the subject.

2.0 TECHNICAL EDUCATION IN VENEZUELA

Technical education in Venezuela is one of three areas of Diversified Secondary Education for the 10th and 11th grades. These three diversified areas are: Humanities, Sciences and Technical Education. Among the total 236,520 students in diversified secondary education, 63.2% of them are in Science, 12.6% are in Humanities and 24% are in Technical Education (TE) (ME, 1984c)

Within TE there are the following areas: a) industry, b) business, c) administration and d) human services. Each area is divided into further specialisations.

There are no options available for students in Humanities and Sciences to take technical education subjects because they are expected to go on to higher education. However, not all the graduates in these areas can enter the higher educational institutes due to a critical shortage of openings.

Presently, there exist three forms of technical education which emerged in different times of its historical development in order to compensate some deficiencies of the existing program. Before Venezuela discovered and started exploiting petroleum, the socio-economic structure of the country was not so demanding as other advanced economic systems with elaborate

divisions of labour, efficiency principles and equality of work opportunities. The first technical schools were created in a primitive form in 1884, offering craftmanship and clerical education for boys. Girls were incorporated in 1913. The following year, technical education was assigned the name, "Educacion especial" (Special education) and included industry, agriculture, besides clerical work and craftmanship (CERPE, 1982).

Since 1937, with the start of industrialisation in the country, agricultural and industrial technical schools had been established all over Venezuela, spontaneously and non-systematically until 1958. The increased importance given to technical education by the society and the government created the necessity of a coordination for this area of study. As a consequence, a central organization DARINCO, "Direccion de Educacion Artesanal Industrial y Comercial" was created in order to coordinate the national development of crafts, industrial and business education in 1958 (CERPE, 1982).

In 1959, several organisations were created with the objective of the development of technical education. These are "Instituto Nacional de Cooperacion Educative (INCE)", and the "Associacion de Promocion de la Educacion Popular (APEP)" (INCE, 1970; APEP 1973). In 1969, a pedagogical institute or teachers college the "Instituto Universitario Pedagogico de Barquisimeto" created a department of technical education in order to prepare teachers in this area. Up to 1969 technical schools attended 35% of the total population of secondary education from 6th grade on.

Since technical education had expanded with non-systematic growth, it did

not have a uniform curriculum among the same specialisation, nor was it possible to transfer from one specialisation to another, because there were no hierarchical relations amongst specialisations. There was a variety of years required for graduation, and there was little if no access for the technical graduates to enter the higher educational institutes.

Besides these aforementioned problems, an explosive growth of the school population, as well as a high level of inconsistency of the educational system in general, brought a reform in 1969 (Perez Olivares, 1972). From a diversity of existing educational systems emerged one consistent structure comprising: A Basic Cycle, "Ciclo Basico", for the 7th to 9th grades; and a Diversified Cycle, "Ciclo Diversificado", for the 10th and 11th grades. All forms of technical schools disappeared into this secondary educational structure. There were three principle reasons forwarded in order to justify closing the technical schools and to incorporate them into diversified technical education: a) to give all students a more integrative education instead of only technical skills, b) to improve the organisation of the curricular system of existing technical education and c) to give TE graduates equal opportunities for admission into higher educational institutes.

In 1977, technical schools were re-opened under the name of "Nuevo Escuela Tecnica" (New Technical Schools) (ME, 1977). These cover 3 years of Basic formation (7th - 9th) and 2 years of Professional formation (10th - 11th). However, the equivalence or advantage of this curriculum compared to the counterpart of "Ciclo Basico" and "Ciclo Diversificado" has not been analysed by the Ministry of Education. Diversified TE was viewed as unsatisfactory by a group of trade union and political groups who value the

technical school experience. Declined enrollment of diversified TE was considered as a sign of failure. On the other hand some groups of opinion criticised the decision to re-open the technical schools, "... it is unjust to form 6th graders as workers, children who have not even finished developing their physical growth ..... it is disrespectful to the principles of equal opportunity .... " (Corsejo Nacional de Educacion, 1977). At the moment technical schools coexist with their Diversified Technical Education counterparts.

Another alternative form which arose due to the unsatisfactory results of diversified TE is a program created under the auspices of INCE - "Instituto Nacional de Cooperacion Educativa". Attending the criticism that diversified TE was too academically and general technical skill oriented, the INCE program places emphasis on practical and useful skill training. Because INCE receives financial support from both government and the private industrial sector, it may offer learning more "relevant " to the actual work site. Students take their basic courses in the regular high school, but receive technical training at a designated practicum site, where generally there exists more actualised facilities and technology. Because this program is experimental and one of its goals is to ameliorate the high level of unemployment among TE graduates, it prepares students for specific jobs and on some occasions guarantees employment upon graduation. Atthe present, because of the few graduates from this program, and its curricular design , which is a combination of distance and in-class strategies, it is hard to evaluate whether it is advantageous over the other two programs.

Little attention has been paid to diversified technical education by policy

makers, and industry, as compared to diversified humanities, sciences and other educational levels. A great amount of attention has been given to the implementation process of Basic Education. On the other hand, higher education institutes have faced some serious problems due to their limited capacity to accept high school graduates, and the low academic achievement and drop-outs of the first year students has brought attention from the Universities and the Ministry of Education about the quality of diversified education. It is important to indicate, though, that this attention is being given to the students who are in Science and Humanities rather than those in the TE, because the former are expected to pursue further studies, while the latter are expected to join the labour market following graduation.

Whilst technical education, has suffered constant shifts of policy within the educational system, current circumstances are pressuring the existing technical education program towards change and innovation.

Several aspects of this situation can be pin pointed: a) the unfavourable employment condition in the labour market for graduates of TE, b) the unfavourable opportunity for them to enter higher educational institutes, c) a curriculum revision of TE will be required forcefully in the near future in order to respond to the new curriculum of the pre-vocational education of Basic Education; d) the rapid economical-industrial structure change which Venezuela has been undergoing, since the beginning of 1983 due to the problem of foreign debt and the oil crisis. This change is induced by crisis rather than pre-planned, so it is difficult to predict the situation of labour supply and demand in the country. Consequently, to

determine the direction of change of TE is somewhat perplexing. e) The equipment and workshop materials for TE were heavily dependent on imported technology. The unfavourable foreign exchange rate has brought about problems for the maintenance of the equipment and a shortage of resource materials.

The type of problem in planning without considering antecedents and consequences of adjustment of diversified technical education is in a similar situation to Basic Education (discussed in Section 3.0). One of the justifications for eliminating technical schools in 1969, and incorporating them into diversified technical education was a concern that the graduates of technical schools could not enter the Universities due to a deficient preparation in general subject material such as mathematics, physics, and chemistry. However, this change without forseeing the consequences is typical of Venezuela. One is that it contributed to the serious problem of the shortage of enrollment openings for higher educational institutions (Chirinos, 1986)

It is interesting to know how the decision made in the Diversified TE reform (1969), in terms of which specialization to be opened and how many students per each specialization , would sustain itself under ulterior scrutiny and evaluation. This planning was based on a study done at that time by a group on manpower demand/offer for the following ten years in Venezuela. How adequate was this prediction? What are the actual consequences of this decision? It is a question that may be answered by reference to parallel innovations in this area as the ensuing case study of prevocationalisation is intended to show.

3.0 PRE-VOCATIONAL EDUCATION IN VENEZUELA

Only recently has the concept of pre-vocational education been introduced into the Venezuelan educational system, its significance being identified much later than that of technical education. An initial attempt with this type of program was made in 1970, among 7th to 9th graders, under the name of "Exploracion y Orientacion Vocacional" (Vocational Exploration and Guidance) (ME, 1970). In this instance, the curriculum was focused on training in technical skills adapted from technical schools rather than pre-vocational types of education. This plan only lasted for a few years and "failed" in its implementation. A second attempt was made in 1980, this time extending pre-vocational education nation-wide and to all grade levels of Basic Education (1st to 9th) (ME, 1980). Without a well planned curriculum, efficient and effective implementation strategies, and consistent support from policy makers, budget allocators, industry and commerce, this new attempt could also lead to failure. This observation is further sustained by reviewing the current economic crisis Venezuela is facing due to foreign debt and falling oil prices, its main export.

In this part of the paper the current problems being faced by pre-vocational education will be discussed as well as an analysis of why the initial project failed. In order to render more explicit the analysis, a brief background description of Venezuelan pre-vocational education by grade level and implementation strategy will be presented.

3.1 Level by level description of pre-vocational education

(i) Pre-school level (Kindergarten) At this level nothing in pre-vocational education has been planned, nor has its necessity ever been stated by the Ministry of Education. This fact is not so surprising if one

considers that the incorporation of pre-vocational education (PVE) into a regular curriculum area at primary level is just beginning.

(ii) Primary level (1st to 6th grades of Basic Education

With the introduction of theeducational system reform in 1981 and the establishment of "Educacion Basica" (Basic Education), PVE was planned for the first time at this level under the area name of "Educacion para el Trabajo" (Education for Work). Education for Work is one of the seven (7) curriculum areas, the other being language, mathematics, natural science and health education, social studies, art education, physical education and sports (ME, 1984b).

Clear objectives were established. Those for 1st to 3rd graders are: a) to develop a positive attitude and appreciation toward work; b) to increase self-esteem; c) to develop abilities and psychomotor skills in creative work; d) to develop favourable attitudes towards school facilities and belongings.

The basic objectives for the 4th to 6th graders are: a) to value work undertaken by persons for the benefit of the local community; b) to apply simple techniques of the maintenance, conservation, and installation of school and home furniture (belongings); c) to develop an appreciative attitude towards work; d) to develop a positive attitude towards co-operative team work in order to save effort, time and material and e) to identify vocational interests (ME, 1984a).

The Ministry of Education disseminated a core curriculum for each grade level and for urban or rural programs seperately (ME, 1985a). This was

deducted from the aforementioned objectives. A good adaptation of the central curriculum to each particular school situation was considered necessary, since the success of implementation for this program relied on the capacity of teachers in the area, availability of resource materials, and the level of participation of the regional education community in each particular school.

The validity of such a standardised product of central planning by the Ministry of Education, including text books, classroom activities, and other resources, without checking their adequacy in school situations, is questionable. It is apparent that mutual adaptation of central and specific curricula through interaction, under an efficient co-ordination is necessary. Major concerns are the lack of experimental programs and research capable of evaluating the relevance and adequacy of the objectives and curricular content at each grade level. Lack of curriculum continuity could easily result in a threat to the well being of students as well as teachers, and so needs to be avoided at the planning stage before the implementation throughout the country.

(iii) Junior high level (7th to 9th grade of Basic Education

Pre-vocational education at this level has attained more experience in the country in comparison to the lower level, though this previous experience is rather more characteristice of technical education than PVE. In 1971, pre- vocational education was introduced under the name of "Exploracion y Orientacion Vocacional", its basic objectives were: a) to help identify and develop individual differences of students towards their integrated development: b) to offer opportunities for vocational exploration and to

inform about job activities and potential job markets; c) to develop practical problem solving capacities and appropriate decision making (ME, 1970). The areas planned at that time were: agriculture, gardening, home economics, business, electricity, technical drawing, wood work, metal work (ornamental iron work and plumbing), plastic arts (drawing and painting), plastic arts (moulding and ceramics), plastic arts (graphic arts) and music. Unfortunately this project did not flourish despite intensive curriculum planning undetaken by the Ministry of Education over a period of several years. A distinctive concept of pre-vocational education was not clarified by the planners at that time. They counted on the teachers and on the curriculum existing in technical schools in the implementation of such a project to all the junior high schools in the country. A combination of lack of prepared teachers, lack of facilities and lack of support from the government resulted in the failure of this program.

In that sense, a more "genuine" type of pre-vocational education at this level was introduced in 1981 with the reform of Basic Education, which is not only the extension of compulsory education up to 9th grade instead of 6th grade as before, but is also a curriculum innovation intended to be a more appropriate process of education. As in the primary level pre-vocational education is called "Education for Work". The objectives are: a) to value the importance of the production of goods and services for the socio-cultural development of the community; b) to develop creative ways of doing activities; c) to administer some techniques in a specific area of work; d) to orient co-operative team work, and e) to plan a maintenance project in order to conserve school belongings (ME, 1984a). It should be noted that a central curriculum has not been formulated by the Ministry of Education, nor have guidelines for the content of the program been

established. The areas of work for training students in certain specific techniques have also not been decided. This invites speculation about what kind of curriculum will be planned. It is unlikely to be similar to that of 1971, because this time the objectives of pre-vocational education are not only concentrated in training students in specific skills and techniques, but also intended to have some continuity from 7 curriculum areas of primary level. (ME, 1984b).

3.2 Strategic support in implementation of Education for Work

The philosophical foundations of Education for Work are the same as those of Basic Education: democratization, participation, self-actualisation, creativity, regionalisation, autonomous development, and national identity (ME, 1984a).

In order to endue these qualities into the implementation process, a curriculum strategy was established, called "Unidad Generadores de Aprendizaje" (Generator Units of Learning) (ME, 1984a). It is a strategy of curriculum administration in which students, administrators, teachers, parents and community members get together in order to establish objectives and plan the activities of the school curriculum on the basis of the detected problems, interests and necessities at school, local, regional or national level. It gives students opportunities to transfer school learning to immediate social situations and thus provides parents and community members with a more active participation in schools and permits teachers to "regionalize" the core curriculum to their schools, thus truly adapting it to local characteristics and conditions. This strategy is considered much more important for Education for Work than other curriculum areas such as

language, or mathematics. An adequate interpretation of the specific situation of the school environment, teacher capacity, workshop facilities and tools, as well as support from regional community members are crucial factors for ensuring success in the implementation of pre-vocational education. At this point, such an innovative strategy produces substantial stress to to teachers due to their new roles as planners and as social promoters, specially considering the increased amount of interaction with parents and other members of the community. Ambiguity of role originates from both vaguely defined activities by the Ministry of Education and lack of in-service teacher training. Conflict of roles comes from the discrepancy between professional preparation and new role demands at work, and also from new work habits. An efficient functioning of "Unidad Generador de Aprendizaje" can only be expected after proper training and induction of the participants who will implement it.

At present, an in-service teacher training program, "Programa Nacional de Formacion Docente", PRONOFORDO, (National Program of Teacher Formation) is being carried out. This nation-wide training supports the human resources currently involved in the Basic Education Reform and is under the co-ordination of the Ministry of Education (ME) and the Universidad Pedagogica Eperimental Libertador (UPEL). This university comprises all the major public teachers colleges in Venezuela and on its own is evaluating the PRONOFORDO as well as the fundamental tenets and outcomes of the Basic Education Reform (IUPE "J M Siso Martinez", 1985).

An experiment of distinctive nature in pre-vocational and vocational schooling, the APEP, "Association de Promocion de la Educacion Popular" (Association for the Promotion of Popular Eduction) was founded in 1959.

It is one of the oldest and largest experimental schools. Most of the experimental schools, usually assigned by the Ministry of Education function on a short term base, but APEP runs by conjoint support from the Government, private and religious organisations. In contrast to the "politicised" experiments of the schools chosen by the policy makers, APEP continues its independent program. It promoted pre-vocational education from the 1st to 6th graders even before the Ministry of Education. In spite of the interruption of the implementation of "Exploracion y Orientacion Vocacional" for 7th to 9th grades, it continues its program. It serves 87 schools of the popular sector, so more than 300,000 youngsters have been through this training program since its foundation. Now it serves as a consultant team for the new pre-vocational project as well as experimental and pilot programs (APEP, 1973; 1983).

3.3 Situational analysis of "Education for Work" program

Several problems are occurring and will be faced with the introduction of the PVE project. They can be categorized into the following aspects:

(i) noncontinuity of public policies

(ii) inadequate curricular design

(iii) lack of sufficient human and material resources

These problems were in fact principal causes for the failure of the 1971 pre-vocational education attempt, so following is a discussing of each problem category.

Non-continuity of public policies

(i) The inconsistency arising from the noncontinuity of public policies in Venezuela poses a potential threat to any major educational project

(Chirinos, 1986). The PVE program is no exception. In fact upon the change of government in 1984 the whole Basic Education Reform was temporarily paralyzed. Venezuela is one of the few Latin-American nations with a stable democracy, but this political experience is still somewhat new (less than thirty years old). In recent years the two major parties have alternated in power each five years, with the positive result of strengthening the system, but with the negative consequences of cannibalizing the public policies initiated by the former party when the new regime comes into rule. This means that many public programs and projects are temporarily and sometimes definitely stopped. What aggravates the situation further is that all top level and middle level decision makers are changed ipso-facto without an induction process for the newcomers, nor any assurance for the continuity of programs. The country is different from European nations in the fact that practically all the power rests on the President, Minister, Director or "jefe" with very few decisions being made parliamentary-wise. This characteristic is extremely deleterious on the development and outcome of projects. Each time the government changes, the Minister of Education changes, as well as all his deputy directors, departmental chiefs, directors of schools, inspectors and even the area chiefs in public schools. Such abrupt changes imply contradictory and conflicting lines of decision in operating programs. Taking all this into mind it is not an exaggeration to say that the failure or success of the PVE program will be highly dependent on the pattern of interaction between consistency of policies and the project itself. An ideal solution in order to avoid conflict situations would be the designation of a technical commission with representatives of the difference political parties with long term responsibilities and authority, with a security to act whether the government changes or not.

Inadequate Curricular Design

(ii) Inadequate curricular design is another problematic area which can be pinpointed in PVE. In other study areas such as language, mathematics or the natural sciences the design of the instructional programs can be more or less standard for each grade throughout the country. However, in Education for Work, though the design will inevitably have certain standard features, its objectives, content, and activities must be more situational and regionally specific, paying particular interest to factors such as geographical location, socio-economic level, available resources at school, among others. The decision on what to teach in each grade can not be decided arbitrarily. Students in Basic Education are in the process of their physical, cognitive and affective growth. The curriculum has to be matched to each student's readiness at each developmental stage.

"Career developmental models" ,which are a theoretization on how one's career life, has never been studied nor tested out for Venezuelan youngsters. Some of the problems faced by school counsellors in Venezuela are: a) lack of knowledge on career developmental process of students, b) appropriate interest and apptitude inventories, and c) proper actualized information on jobs in the country (Kim, 1984). These will continue to present problems for the pre-vocational education curriculum area if a proper preventive intervention is not undertaken. Even if the curriculum was adequately programmed without such theoretical basis, it would still be highly recommendable to undertake longitudinal, nation-wide studies, including different situations and regions, concerning career developmental patterns of students, their interests and resource availability. It would

have been ideal to do this research before disseminating the central curriculum, yet it is still not too late due to the fact that the PVE program is beginning. Unfortunately there is also no sign of planning evaluation studies of good quality for the pilot experimental curriculum. These studies could be done in an austere economic fashion if existing human resources were properly utilised. One possibility would be to motivate graudate and undergraduate theses in this area. Simultaneously the teachers participating in the PVE project should receive training and actualisation in planning, curriculum design and development and evaluation and thus enhance their contribution to the program.

Of the few evaluation studies undertaken by the Ministry of Education in order to make contingency decisions, most have been of the one-shot type, instead of accumulating information during many years and from many sites. It would seem recommendable to carry out multi-level evaluation (in terms of the degree of sophistication of the research methods used), multi-disciplinary and longitudinal studies with multiple samples instead of the "politicised" studies currently in vogue.

iii Human and Material Resources

Even if policies were consistent and the curriculum were adequate, a project can still fail due to improper implementation and lack of human and material resources. A lack of prepared educators, efficient supervision and proper material resources could put in peril the PVE project. Furthermore, filling out these scarcities is necessary but still not sufficient, because effective implementation would still be an indispensable requisite. Venezuela is currently confronting an economic

crisis due to the drop in oil prices, its major export, problems of foreign debt and inadequate administrative strategies adopted by the government. The budget hence is being squeezed and public expense is being reduced. This affects the Ministry of Education where also austerity is being imposed. On the other hand, due to rampant inflation, teachers' strikes demanding salary hikes have occurred several times. So teacher unrest exists, and it appears to be difficult to resolve satisfactorily this conflict in the immediate future. Lack of public funds implies a shortage of materials and in-service training, necessary requirements for a successful PVE program. Research by Kim, Navarro & Picon (1984) finds that the seven highest stress-inducing job conditions out of forty one items among Venezuelan Basic Education teachers are: a) insufficient salary, b) dealing with discipline and learning problems of students, c) inadequate material resources, d) too much work for after school hours, e) lack of official support for in-service training, f) demand of new teaching methods and g) too many students per teacher. It is noteworthy to indicate that the 1986 crisis can only have aggravated these conditions since 1983 when the study was done and that the future implementation of the Basic Education Reform, including the PVE program, is also a cause for concern. On the one hand there is an economic situation demanding limited spending and on the other hand there is a nationwide, innovative educational reform requiring the allocation of additional funds for modifying buildings, installations, text books, equipments, teacher training and so forth. The situation makes imperative the adoption of alternative strategies such as mechanisms or self-finance and inducing the industrial sector to invest in the PVE program, as well as trying to obtain regional community funds. There have been some "Cooperativisimo Escolar" (School Cooperativism) experiences where students actually produce goods at school and sell as a

income source, with part begin diverted to school, but these have been limited (ME 1985b). The truly critical problem is how to get the teachers involved into these type of experiments, as well as to obtain community resources. Teachers need to be trained in order to assume this new role appropriately, so this should be a priority in the allocation of funds. It should be remembered that lack of teacher preparation was one of the multiple reasons for the failure of the first PVE attempt in 1970. It seems that this time the teacher training program is much more systematic and organised. On one hand all the teachers' colleges have been put under one authority the UPEL, "Universidad Pedagogica Experimental Libertador" with strong emphasis being put on improving Basic Education. On the other hand there is a nation-wide in-service program where all higher education institutions are participaing under the coordination of the Ministry of Education and UPEL (IUPE J M Siso Martinez, 1985).

4.0 CONCLUSION

The paper has identified the shifts in policy and practice vis a vis technical education an d prevocational studies in Venezuela. It has portrayed the relative "failure" to sustain either over periods of time.

It has also identified a number of features, internal and external to the educational system. It has identified the limited returns in economic and labour market terms. Clearly these constraints are not restricted to the Venezuelan context. There are parallels with many such innovations both in Latin America and the wider world: many of the constraints are typical of curriculum innovations generally others are specific to vocational innovations. Indeed the conference rationale indicates the pressures that

constrain vocational education reforms. Whilst no attempt is made to draw comparative illustrations, the paper recognises that Venezuela, despite the uniqueness of its political economy, is in no way unique in its response to diversified reforms.

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